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INDO-PACIFIC FISHERIES COUNCIL

CURRENT AFFAIRS BULLETIN

ISSUED BY THE IPFC SECRETARIAT, FAO REGIONAL OFFICE, BANGKOK, THAILAND.

No. 8 SEPTEMBER, 1952.

BRITISH NORTH BORNEO

Officers' Movements :- Mr. Chin Phui Kong, graduate in Fisheries Science from the University of Amoy, has been appointed Fisheries Officer in place of Mr. A.M. Anderson who, after attending the Seminar in Statistics at Bangkok, has proceeded on 140 days' leave following completion of three years' tour of duty.

Trade :- Export of Marine Products from the Colony, mainly to Singapore and Hong Kong, has shown an annual increase since 1947. The export which was 20,416 piculs valued at $ 971,629 in 1950, rose to 21,050 piculs valued at $ 1,032,332 in 1951. Local supplies of marine foodstuffs are generally adequate, but small local shortages occur from time to time. Total production of dried and salted marine foodstuffs is estimated at 20,950 piculs for 1951, of which approximately 72% were exported. The average value of exported marine foodstuffs declined from $ 54.47 per picul in 1950 to $ 51.63 in 1951.

The Chun-Li Fishery Company has been granted a lease of 10 acres of land on the sea-front on Gaya Island in Jesselton harbour for the establishment of wharf, boatyards and staff quarters and the installation of an ice-making and cold-storage plant. The necessary equipment has been purchased and is held in store until the land can be cleared and the site prepared.

CEYLON

FAO Expanded Technical Assistance:- On completing one year's work, the FAO-ETAP expert, Mr. A. Glanville, submitted a report on the project of machanization, and the Government of Ceylon has desired the project to be continued in 1953.

A Marine Engineer Superintendent, two Fish Harbour Specialists, a Marine Biologist and an Economist are under recruitment.

HAWAII

Pacific Oceanic Fishery Investigations :- Data collected during the past one year by the Pacific Oceanic Fishery Investigations indicate that the concentration of plankton, forage organisms and tuna is a product of the current system. The existence of a sub-surface counter-current as distinct from the Equatorial Counter-Current was demonstrated and measured directly by a newly developed, cone-shaped drag. It was observed that water at 200 to 300 feet below the surface at the equator was flowing strongly to the east when

the surface water was flowing to the north-west. The shifts in the location of the surface and deep currents have a direct bearing on tuna concentrations. Yellow fin tuna has been seen to occur along the equator in the sub-surface depths at all longitudes axamined (120° to 180° W.) regardless of the proximity to land, and the surmise is made that the yellow fin tuna occurs in a continuous Equatorial band from Asia to America. Correlation has also been found of surface phosphate concentration, with zooplankton and tuna.

A continuous 24 hours' fishing experiment conducted by the vessel JOHN R. MANNING, setting and hauling long line gear every four hours, yielded yellow fin tuna exclusively during the day, while big-eyed tuna was confined to the night. This difference remains to be checked by further experiments.

A new shipboard aquarium system intended for hatching and rearing fish eggs and larvae with a view to spotting the spawning grounds of the different kinds of tuna, has been tested and found to work satisfactorily.

Skipjack studies suggest that the success of their fishing and the length of their fishing season may depend upon high water temperature.

HONG KONG

Mechanization of Fishing Fleet :- The Fisheries Department decided, in consultation with the Marine Department, to raise the 150-picul (1 picul=133 1/3 lbs.) limit for craft allowed to be operated by a skipper-engineer certificate holder to 250 piculs capacity. This is expected to facilitate the mechanization of purse seiners of this size.

Skipper courses were held for fishermen, and seven entrants passed the examination. The Department is further planning, in conjunction with commercial firms, more advanced training as engineers for young fishermen and the design of the most suitable type of purse seiner for mechanization.

Fish Marketing :- The Report of the Director of Marketing from March to June revealed an improvement in the trend of the Mackerel-Scad fishery in March, this being second only to the Golden Thread. The total landings in March were 7% higher than those of last year. April—May witnessed the end of the main fishing season and according to the "Bigtail" fishermen of Tai O, the white Herring season (April—June) was not good, and many of the fishermen are in financial difficulties. The total catches in April—June were slightly less compared with last year and salt/dried fish landings were down by over 20%. The main purse-seiner season has commenced and large quantities of Golden Sardine, Carangoid Scad and Anchovy have been landed.

During the four months, 172,446 piculs of fish (136,751 fresh, priced at $ 10,636,887 and 35,695 salted, priced at $ 2,182,456) were marketed. Prices were more or less similar to those of last year. However, owing to higher prices prevailing in China for the Mackerel-Scad type of fish, many Pa teng fishermen have been persuaded to take their catches to Chinese ports in spite of the obvious risks involved.

The power-driven fishing fleet continues to comprise 137 vessels. Nine fisherchildren have been granted scholarships by the Fish Marketing Organization for their education in local vernacular schools.

From April, 1952, the Report of the Co-perative and Marketing Department is issued quarterly instead of monthly.

INDIA

Marine Fisheries :- The Central Marine Fisheries Research Station, Mandapam, South India, with its survey centres located along the coast line of India, has for the past few

years been engaged in the collection of statistics of marine fisheries in addition to its normal scientific activities. A census of all the marine fishing villages of India in 1948 revealed that there are 1,264 marine fishing villages with 74,241 indigenous boats of different types engaged in marine fishing. The boats range from an ordinary raft of 3 logs lashed together and known as *Catamaran* to the very skilfully designed, plank-built boat. There are more than 364,000 pieces of nets in use, ranging from the small cast net to a mile-long Rampani net of the Ratnagiri Coast.

Since 1949, attention has been paid to estimating the total landings of marine fish in India by the sampling method. The landings of marine fish by the indigenous boats and nets amounted to 521,438 tons (1 ton= 2,240 lbs) in 1951, whereas it was 567,246 tons in 1950. The West Coast of India contributed the major portion of the landings and accounted for about 75% of the total catch in 1950 and about 82% in 1951. There is a small number of mechanized vessels operating in Indian waters, but compared with landings from indigenous craft, the production from mechanized vessels is negligible.

An analysis of the seasonal variation of the landings reveals that almost 2/3rds of the landings are during the 6 months from October to March. The heavy monsoons on the West Coast from June to August bring the fishing activities along that coast almost to a standstill.

The average annual return per boat during the years 1950 and 1951 was 16,083 lbs, while the average annual return per active fisherman was 1,590 lbs. The percentage yields of different fishes vary from year to year. The figures for 1950 and 1951 show that Sardines, Mackerels and Prawns form nearly half of the total catch. The average percentage yeilds of some of the important groups of fishes are : Mackerels 18.20, Sardines 16.58, Prawns 14.18, Anchovies and Herrings 11.38, Jew-fishes 5.90 Sharks & Rays 4.43, Silver-bellies 3.31 Ribbonfishes 3.27, Cat-fishes 3.00, Flat-fishes 2.89, Perches 2 57, Bombay-Duck 1.98, Carangids 1.51, Pomfrets 1.33, Seer-fish 1.30, Tunnies 0.50, Other Fishes 7.66.

The distribution of some of the above groups of fishes is regional; others are available along the entire coast. Makerel, which forms 18 per cent of the total catch, are mainly landed along the Malabar and Kanara coasts of Madras and Bombay States. Sardines, Sharks, Rays and Cat-fishes occur throughout, but the Oil Sardine occurs only on the West Coast. Prawns are specially abundant off Bambay and Cochin. Jew-fishes, though an all-India fishery, are caught heavily off Bombay coast. Bombay-Duck as a fishery is confined to the Bomay coast. Tunnies are caught off Travancore and Tuticorin although they have been reported at Ratnagiri and along Orissa and Andhra coasts.

The Oil Sardine fishery has been showing a notable recovery during the past three recent years after a long period of decline which had caused much distress to the Malabar fishermen.

FAO Expanded Thchnical Assistance :- Magnar Kristensen, Advisor to the Director of Fisheries, Norway, on the Government's commercial fishing undertakings, has taken up an assignment at Bombay in the FAO-ETAP for six months. He will be engaged in making an appraisal of the operations undertaken by the Indian Pilot Deep-Sea Fishing Station and assessing future possibilities.

Mr. W. F. L. van der Heyden of the Netherlands will soon be joining Mr. Botke in west Bengal to work as Fishery Engineer for one year with special reference to capture mothods in fresh and brackish water and inland fish distribution.

Orissa :- *Carp culture :* Survey work for locating spawning areas in river, of quick growing carps like *Labeo rohita, Cirrhina mrigala, Catla catla* and *Labeo calbasu* which do not, as a rule, bread in confined waters has been taken up systematically since 1945. It has now been possible to establish 50 spawn collecting and rearing centres. For want of knowledge on the proper catching methods

and feeding habits of fry the mortality in nurseries was as much as 97%. Results of investigations carried out by the Central Inland Fisheries Research Station in the laboratory and in the field have now generally been applied to the nursery centres in the State. As a result of this, the survival rate has been raised to 50%.

JAPAN

A 1952 publication by the Japanese Government Fisheries Agency on the Fisheries of Japan describes the past and present situations of the fisheries of a country which has been one of the premier in the East in the matter of sea fishing, the latter supplying the largest part (about 90%) of animal protein to the population.

The geographical situation of Japan consisting of long islands with an extensive coastline of 21,000 km. providing good harbours and enjoying the benefits of the confluence of warm and cold ocean-currents, has been most favourable for the richness and easy exploitation of the marine fisheries. As early as the 2nd century, Japanese fishermen were invited as fishing experts to China. Fish conservancy measures were instituted in Japan in the 7th century. The 8th century saw the development of processing and preserving methods and the utilization of sea products for art craft. In the 17th century, with the development of transportation and markets, the demand for catch increased, and many kinds of fishing boats and gears, especially the typical Japanse netting and angling in coastal waters began to make their appearance. Towards the next century some coastal fishermen started proceeding to offshore waters. With the growth in the industry, co-operative fishery organizations such as the guild and joint family enterprises came into being, and soon some part of the trade began to be controlled by commercial capital.

In the Meiji era in the latter half of the 19th century, an era comparable to the Western Industrial Revolution, Japan opened her ports to foreign trade and a progressive advance of coastal fishing to offshore waters was witnessed. This was the preparatory period for the next stage which involved the introduction of powered boats early in the present century, the abolition of feudalistic restrictions on fishing, the travelling overseas of fishery technicians, the establishment of educational facilities specializing in fisheries, the introduction and diffusion of breeding techniques, the commencement of scientific research and study of fishing grounds and catches, the advent of cotton fishing nets manufactured by knitting machinery, the rise of the canning industry brought about by the Sino-Japanese War and the Russo-Japanese War, the expansion of new fishing grounds due to the occupation of Formosa, Saghalien and Korea and, furthermore, the development of engineering industry which made possible the production of the powered craft and gear, various processing and catching machines, the manufacture of by-products such as fertilizer, feed, oils and fats, the improvement of the distribution mechanism in the domestic market to cope with the increased demand of marine products, the delelopment of foreign trade, etc.

The increasing demand for fish and other marine products and the mechanization of fishing crafts and gears led to an extension of offshore fishing to the high seas.

Japan's position in fisheries was quite enviable in the pre-war years. In 1936 She produced nearly ten million tons of marine products and there were over a million persons engaged in the industry with 366,000 fishing vessels—figures which were top-ranking among the fisheries countries in the world in those days.

Then followed the set-back consequent on World War II. The drafting of fishing boats and fishermen and consumption controls and restriction of fishing grounds were inevitable. The number of Japanese powered fishing vessels of steel which was 500 in 1940 dropped to 80 by 1945. The allotment

of petroleum products for the fishing industry fell from 476,723 kl in 1939 to 39,444 kl in 1944. The amount of cotton twine allocated to fishing industry was also reduced from 26,413,000 lbs in 1939 to 339,000 lbs in 1944. Production naturally dropped deplorably.

A group of nutrition experts who, at the request of the Economic Stabilization Board, investigated the food position in post-war Japan, observed that the health of the nation was at great risk on account of inadequate nutrients. It was strongly impressed that the provision of animal protein through the increase of fish production was absolutely necessary to help the national food situation.

Thanks to the many efforts which have since been made by the Government and the SCAP for recovery in the post-war period, the Japanese fisheries have revived considerably and is well on its way to restitution and progress.

In 1949, the total tonnage of fishing boats exceeded that of pre-war—the powered boats increased to 120% and the total production reached 80% of that of the average during 1931-40.

The main fisheries of Japan are those of sardine, mackerel, herring, cod, pollack, saury pike, squid, shark, crab and miscellaneous items with some whaling and seaweed collection. The pearl oyster fishery deserves special mention. Inland fishery development with interest in paddy-cum-fish culture is also receiving attention.

This speedy revival is indeed heartening; but the future of the Japanese fisheries is beset with a number of problems such as the co-ordination of the need for increasing production with the manifest limitations of the fishing grounds. Thus the time has come to abandon the way of past years such as to increase the catch by the extension of fishing grounds and, on the other hand, to direct the endeavours to the saving of materials necessary or moderate the quantity of catch required based on the estimated resources to the maximum utilization of products and to the increase of sales by the extension of markets. Sound administration in future years will call for great discretion and prudence in attending to these important aspects of Japanese fisheries.

KOREA

Officers Movements :- Mr. P. M. Poulsen of Canada has agreed to serve as a member of the FAO Agriculture, Fisheries and Forestry Mission requested by the United Nations Korean Reconstruction Agency. He will assist in preparing an over-all five year programme for the rehabilitation and development of the Korean Fisheries.

MALAYA

Fishing .- The Director's reports for the months December 1951 - July 1952 indicate a fluctuation in the number of fishing gears in operation between 9346 and 11,774 (1951 December : 9346 ; 1952 January : 10319 ; March: 10,316 ; April: 11,774 May: 10,952; June 9,443 and July: 10,819). The gears consisted mainly of drift nets, lines, siene nets, fishing stakes, push nets, bag nets, traps, lift nets, carb traps and nets, stakes and screens, trawling and shell fish collecting.

The totals of fish landings rose from 97,782 Pkls. in December '51 to 179,938 Pkls. in April '52. After a fall to 139,803 in June they rose to 165,088 Pkls. in July. The monthly landings in Pkls. were: 1951 December—97,782; 1952 January—97,641; February—98,001; March—129,126; April—179,938; May 151,251; June—139,803; and July—165,088.

Trade with Indonesia :- The monthly import of fish, mostly iced, from Indonesia (mainly Sumatra Islands) ranged from 2,070 pkls. in April to 2,843 pkls. in June, the average for the 8 months being 2,519.5 pkls.

Fresh-water Fisheries :- Construction of new fish ponds and stocking with Chinese Carp, *Tilapia* etc. have been proceeding actively in several districts, especially in Malacca. In certain areas floods caused inundation and damage to ponds and a part of the stock escaped into the streams, the damages are being repaired.

A decrease which occurred early in the period in the natural crop of Aruan (*Ophicphalus*), Keli (*Clarias*) and Sepat Siam (*Trichogaster*) in the ponds in Sangland, Simpang Empat and Sungei Baru is attributed to the clearing for agriculture of swampy lands where fish used to breed and the capture of immature fish in the irrigation canals from where they would in the normal course find their way to the tanks during the rains. Protective steps for the fry have been advocated to be taken up by Government.

After a break of about 5 months which was due to export restrictions, shipments of Carp fry from China began to arrive in June with about 60% survival and were continued in July.

Cockle-culture :- The cockle-culture bed in Sungei Nibong, Penang, was harvested once and re-seeded with seed cockles from Kuala Gula, North Perak. The Kuala Selangor fishermen have registered their Association and have cultured and harvested some cockle. Arrangements are being made for preparing a scheme for RIDA assistance to a select cockle rearing group of Malays at Kuala Kedah. T.O. licences for cockle rearing at Tenjong Karang and Pulan Klang have been granted. Increasing numbers of applications for T.O. licences are being received.

Balic Pulan Research Institute:- Dr. C.B. Taylor who was reported in CAB No. 6 to have accepted the post of Director of the Balic Puran Research Institute has resigned, and the formation of the Institute is being delayed.

PAKISTAN

FAO Expanded Technical Assistance:- Mr. Nils Jangaard whose appointment as Commercial Fishery Consultant to East Pakistan was announced in the previous issue of the CAB, arrived in Karachi on September 15.

Mr. Harald Fibiger of Denmark has been selected as the Fish Harbour Specialist to work as a team with Mr. Jangaard.

PHILIPPINES

Promotion of Inland Fisheries :- Special attention is reported to be paid for increasing fish production in the inland waters of Philippines by extending the culture of carps, *Tilapia* and *Trichogaster* in ponds as well as rice fields and applying green manure in fresh- and brackish-water ponds. Local material like bamboo is being utilized for the construction of containers for the transport of fish fry and fingerlings.

THAILAND

FAO Expanded Technical Assistance :- Dr. S.W. Ling, FAO/ETAP Expert, has furnished to the Thai Government an outline for a two years' work programme for the development and utilization of swamps of Korat Area for increased production of fish with suggestions for preliminary studies on the biology and fishery of the long-legged prawns of Thailand and on the culture of Arca shell. Fish seed production and distribution has been steadily extended recently in the various provinces under Dr. Ling's technical help and supervision. Since the need for trained personnel for fish culture work in Thailand was keenly felt, a six weeks' course of General Freshwater Fisheries Training has also been initiated at Bangkok for Thai Fish-culture Officers.

FOOD AND AGRICULTURE ORGANIZATION

Hoshchule Award for Mr. Dodd:- Mr. Norris E. Dodd, Director-General of the Food and Agriculture Organization has been awarded an Honrary Degree from the Hoschule für Bodencultur in Vienna.

Papers of Interest :-

1.. Fish Culture in Brackish-ponds of Java, by W. H. Schuster—English edition—IPFC Special Pubication No. 1.

2. The Yearbook of Fisheries Statistics—in the course of publication—FAO Head Office, Rome.

3. Local Common Names of Indonesian Fishes, by W. H. Schuster and R. Djajadiredja, published for the Indonesian Ministry of Agriculture by N. V. Penerbit, W. van Hoove, Bandung and 's-Gravenhage, the Netherlands.

4. Modern Whaling and its Prospects, by Jonh Ruud—FAO Fishery Bulletin 5 (5).

5. A Report on Pollution of the Aconcague River (Sent to the Department of Fish and Game, Chile).

6. Some Aspects of the Primary Productivity of the Sea (to appear in FAO Fishery Bulletin).

The General Fisheries Council of the Mediterranean :- The first meeting of the General Fisheries Council of the Mediterranean, the agreement for the establishment of which came into force on 20th February, was held in Rhodes, Greece, in the 3rd week of July. Delegates from France, Greece, Israel, Italy and the United Kingdom and observers from Moroco, the United Nations, the International Council for the Exploration of the Sea and the International Commision for the Scientific Exploration of the Mediterranean Sea participated. In the course of the organizational discussions with Mr. Zighdis in the chair, an Excutive Committee consisting of Mr. Le Gall, Chairman, and Messrs. Serbetis and Soljan, Vice-chairmen, was appointed. Technical Committees on Exploration, Production and Utilization have been established. The Council's programme would include, by priority, exploration of new fishing grounds, research on tuna and sardines, boats and gear, pollution, fishery biology, professional diseases and hygiene of fishermen, statistics, standardization of terms and vocational training.

INDO-PACIFIC FISHERIES COUNCIL

Council's 4th Meeth :- The 4th Meeting of the Indo-Pacific Fisheries Council opens at the University of the Philippines, Quezon City, on October 23. Australia, Burma, Cambodia, France, India, Indonesia, Japan, Korea, Netherlands, Pakistan, Thailand U.K., U.S.A. and Vietnam are expected to be represented by delegations. The UNESCO wlll be represented by their South East Asia Science Co-operation Officer from Djakarta and East Asia Science Co-operation Officer based at Manila as Observers. A member of the Pacific Science Association Standing Committee on Oceanography of the Pacific will respresent that Association also as an Observer. The Director of the Fisheries Division with two other officers of the Division will represent the FAO Head Office. The agenda includes a wide variety of technical subjects which it is anticipated will greatly stimulate the work of the two Technical Commitees, (I) on Hydrobiology and (II) on Fisheries Technology and their various Sub-committees. Reports on the activities of these committees will be presented and discussed and further programmes of work will be formulated. Two symposia, one on Socio-econmics and another on the Place of Research and Investigation in Fisheries Development, will also be held.

Prior to the Council's meeting the Executive Commitee's 5th Meeting (1951-52) will also be held at Quezon City.

Council's Appointment :-

Bibliographic Correspondent :

CEYLON — Director of Fisheries, Galle Face, Colombo 3, Ceylon.

OTHER INTERNATIONAL ORGANIZATIONS

International Commission for the North-West Atlantic Fisheries :- Pending decision on the permanent site for the Commission's headquarters, the temporary headquarters remains at St. Andrews, New Brunswick, Canada. Dr. J.L. Kask, Assistant Director of the Fish and Wildlife Service (U.S.) is the Chairman for the current year. A Secretary is also being appointed. The United Kingdom, The United States, Canada, Spain, Denmark, Norway and Iceland, are among the countries which have ratified the treaty.

The International Labour Organization :- The International Labour Organization has published the "Condition of Work in the Fishing Industry" which is a general survey of the world's fishing industry covering 24 countries in Europe, Asia, and America. An official of the Maritime Division of the International Labour Organization signed on as a member of the crew of a trawler in Belgium to study first hand the conditions of the Belgian Fishing Industry.

The Joint Maritime Commission of the I.L O. has resolved to propose that a special committee of experts be set up with a view to the early adoption by the General Conference of the I. L. O. of international regulations governing employment conditions of fishermen.

International Union for the Protection of Nature :- The 3rd Meeting of the International Union for the Protection of Nature is being held early this month (Septemper) in Caracas, Venezuela.

GENERAL

Paddy-cum-Fish Culture in Arkansas :- A report from Arkansas states that rice farmers are taking to paddy-cum-fish culture utilizing their vast supplies of surface water, and that farmers from the rice-growing areas of Louisiana, Texas, and California have been visiting the Arkansas farms to study the new operation.

Automatic Microtome :- An interesting note by U. Bush on this new intrument and method for automatically cutting and mounting thin sections of embedded biological specimens is given in the "Science" **115** (2998). The automatic microtome combines slicing and mounting in such a manner that the specimen tissue, while being cut, is supported by the mouting film. A strip of film base with the sections duly mounted at intervals is thus obtained. The section is firmly supported during slicing and hence distortion is practically eliminated. Treatment such as staining can be done by the usual protographic equipment. Projection or examination is facilitated since successive sections can be brought into register with the help of an ordinary 35 mm film-handling equipment. Copies can also be made easily with ordinary motion picture equipment.

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